

Standing Requirements

Program Mission Statement

The Associate in Science in Professional Aeronautics degree program is designed specifically for students who work, have worked, or desire to work in the aviation-related careers. For students with existing aviation-related knowledge and skills, the program recognizes those skills through award of advanced standing prior-learning credit. The curriculum builds upon those skills. The program also provides a path for those students new to aviation to acquire these skills through aviation-related courses.

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ERAU University Mission Statement

Our mission is to teach the science, practice and business of aviation and aerospace, preparing students for productive careers¹ and leadership roles in service around the world.²

Our technologically enriched, student-centered environment³ emphasizes learning through collaboration and teamwork,⁴ concern for ethical and responsible behavior,⁵ cultivation of analytical⁶ and management abilities,⁷ and a focus on the development of the professional skills needed for participation in a global community.⁸ We believe a vibrant future for aviation and aerospace rests in the success of our students. Toward this end, Embry-Riddle is committed to providing a climate that facilitates the highest standards of academic achievement⁹ and knowledge discovery,¹⁰ in an interpersonal environment that supports the unique needs of each individual.¹¹ Embry-Riddle Aeronautical University is the world's leader in aviation and aerospace education. The University is an independent, non-profit, culturally diverse institution providing quality education and research in aviation, aerospace, engineering and related fields leading to associate's, baccalaureate's, master's and doctoral degrees.

Program Alignment to University Mission

Select all that apply.

- ¹Preparing students for productive careers
- ²Preparing students for leadership roles in service around the world
- ³Technologically enriched environment
- ⁴Emphasize learning through collaboration and teamwork
- ⁵Concern for ethical and responsible behavior
- ⁶Cultivate analytical abilities
- ⁷Cultivate management abilities
- ⁸Develop the professional skills needed for participation in a global community
- ⁹Facilitating the highest standards of academic achievement
- ¹⁰Facilitating knowledge discovery
- ¹¹Providing an interpersonal environment that supports the unique needs of each individual

Standing Requirements

Program Outcomes

Aeronautics Shared Program Outcomes

Outcome

Outcome	Mapping
Critical Thinking The student will show evidence of knowledge at a synthesis level to define and solve problems within professional and personal environments.	Embry-Riddle General Education Competency Set: Critical Thinking (DB, PC, WW)
Quantitative Reasoning The student will show evidence of the use of digitally-enabled technology and analysis techniques to interpret data for the purpose of drawing valid conclusions and solving associated problems.	Embry-Riddle General Education Competency Set: Quantitative Reasoning (DB, PC, WW)
Information Literacy The student will show evidence of meaningful research, including gathering information from primary and secondary sources and incorporating and documenting source material in their writing.	Embry-Riddle General Education Competency Set: Information Literacy (DB, PC, WW)
Communication The student will show evidence of communicating concepts in written, digital and oral forms to present technical and non-technical information.	Embry-Riddle General Education Competency Set: Communication (DB, PC, WW)
Scientific Literacy The student will show evidence of analyzing scientific evidence as it relates to the physical world and its interrelationship with human values and interests.	Embry-Riddle General Education Competency Set: Scientific Literacy (DB, PC, WW)
Cultural Literacy	Embry-Riddle General Education Competency Set:

The student will show evidence of the analysis of historical events, cultural artifacts, and philosophical concepts.

Cultural Literacy (DB, PC, WW)

Life Long Personal Growth
The student will show evidence of the skills needed to enrich the quality of life through activities, which enhance and promote lifetime learning.

Embry-Riddle General Education Competency Set:
Lifelong Personal Growth (WW Only)

Aviation/Aerospace/Aeronautical Science
The student will show evidence of advanced concepts of aviation, aerospace, and aeronautics to solve problems commonly found in their respective industries.

No Mapping

Aviation Legislation and Law
The student will show evidence of the basic concepts in national and international legislation and law as they pertain to the aviation, aerospace, and aeronautics industries.

No Mapping

Aviation Safety
The student will show evidence of basic concepts in aviation safety as they pertain to the aviation, aerospace, and aeronautics industry.

No Mapping

Aviation Management and Operations
The student will show evidence of sound, ethical, management principles within standard aviation, aerospace, and aeronautics operations.

No Mapping

FL - Embry-Riddle General Education Competency Set (Copy 1)

General Education Competencies

Competency	Mapping
1. Critical Thinking (DB, PC, WW) The student will apply knowledge at the	Embry-Riddle General Education Competency Set: Critical Thinking (DB, PC, WW)

synthesis level to define and solve problems within professional and personal environments.

2. Quantitative Reasoning (DB, PC, WW)
The student will demonstrate the use of digitally-enabled technology (including concepts, techniques and tools of computing), mathematics proficiency & analysis techniques to interpret data for the purpose of drawing valid conclusions and solving associated problems.

Embry-Riddle General Education Competency Set:
Quantitative Reasoning (DB, PC, WW)

3. Information Literacy (DB, PC, WW)
The student will conduct meaningful research, including gathering information from primary and secondary sources and incorporating and documenting source material in his or her writing.

Embry-Riddle General Education Competency Set:
Information Literacy (DB, PC, WW)

Communication (DB, PC, WW)
4. The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.

Embry-Riddle General Education Competency Set:
Communication (DB, PC, WW)

5. Scientific Literacy (DB, PC, WW)
The student will be able to analyze scientific evidence as it relates to the physical world and its interrelationship with human values and interests.

Embry-Riddle General Education Competency Set:
Scientific Literacy (DB, PC, WW)

6. Cultural Literacy (DB, PC, WW)
The student will be able to analyze historical events, cultural artifacts, and philosophical concepts.

Embry-Riddle General Education Competency Set:
Cultural Literacy (DB, PC, WW)

7. Lifelong Personal Growth (WW Only)
The student will be able to demonstrate the skills needed to enrich the quality of life through activities which enhance and promote lifetime learning.

Embry-Riddle General Education Competency Set:
Lifelong Personal Growth (WW Only)

The ASA Program Outcomes

Outcome

Outcome	Mapping
<p>8. Aviation/Aerospace/Aeronautical Science The student will demonstrate a knowledge and understanding of the basic and thus advanced concepts of aeronautical science as they apply to the aviation/aerospace industry for solving problems.</p>	<p>The ASA Program Outcomes: 8. Aviation/Aerospace/Aeronautical Science</p>
<p>9. Aviation Legislation and Law The student will engage and discuss to present a knowledge and understanding of basic concepts in National and International Legislation and Law as they pertain to the aviation/aerospace industry.</p>	<p>The ASA Program Outcomes: 9. Aviation Legislation and Law</p>
<p>10. Aviation Safety The student will compare and discuss in written and spoken formats a knowledge and understanding of basic concepts in aviation safety as they pertain to the aviation/aerospace industry</p>	<p>The ASA Program Outcomes: 10. Aviation Safety</p>
<p>11. Aviation Management and Operations The student will present and illustrate a knowledge and understanding of management activities as they apply to aviation/aerospace operations in written and numerical ways where ever appropriate</p>	<p>The ASA Program Outcomes: 11. Aviation Management and Operations</p>

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ASA Gen Ed Program Outcomes

Courses and Activities Mapped to FL - Embry-Riddle General Education Competency Set (Copy 1)

General Education Competencies							
1. Critical Thinking (DB, PC, WW) The student will apply knowledge at the synthesis level to define and solve problems within professional and personal environments.	2. Quantitative Reasoning (DB, PC, WW) The student will demonstrate the use of digitally-enabled technology (including concepts, techniques and tools of computing), mathematics proficiency & analysis techniques to interpret data for the purpose of drawing valid conclusions and solving associated problems.	3. Information Literacy (DB, PC, WW) The student will conduct meaningful research, including gathering information from primary and secondary sources and incorporating and documenting source material in his or her writing.	Communication (DB, PC, WW) 4. The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.	5. Scientific Literacy (DB, PC, WW) The student will be able to analyze scientific evidence as it relates to the physical world and its interrelationship with human values and interests.	6. Cultural Literacy (DB, PC, WW) The student will be able to analyze historical events, cultural artifacts, and philosophical concepts.	7. Lifelong Personal Growth (WW Only) The student will be able to demonstrate the skills needed to enrich the quality of life through activities which enhance and promote lifetime learning.	
Courses and Learning Activities							
ASCI 202 Introduction to Aeronautical Science	M		P	P	P	I	
ASCI 254 Aviation Legislation and Law			P	P		P	
MATH 211 Statistics with Aviation Application		M					
HUMN 330 Values and Ethics					P		
PHYS 102 Exploration in Physics					I		
Legend :	I	Introduced	P	Practiced	M	Mastered	

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ASA Program Outcomes

Courses and Activities Mapped to The ASA Program Outcomes

	Outcome			
	8. Aeronautical Science The student will demonstrate a knowledge and understanding of the basic and thus advanced concepts of aeronautical science as they apply to the aviation/aerospace industry for solving problems.	9. Aviation Legislation and Law The student will engage and discuss to present a knowledge and understanding of basic concepts in National and International Legislation and Law as they pertain to the aviation/aerospace industry.	10. Aviation Safety The student will compare and discuss in written and spoken formats a knowledge and understanding of basic concepts in aviation safety as they pertain to the aviation/aerospace industry	11. Aviation Management and Operations The student will present and illustrate a knowledge and understanding of management activities as they apply to aviation/aerospace operations in written and numerical ways where ever appropriate
Courses and Learning Activities				
ASCI 202 Introduction to Aeronautical Science	I	I	I	I
ASCI 254 Aviation Legislation and Law		M		
Legend : I Introduced P Practiced M Mastered				

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ASA Assessment Schedule

Courses and Activities Mapped to FL - Embry-Riddle General Education Competency Set (Copy 1)

General Education Competencies							
1. Critical Thinking (DB, PC, WW) The student will apply knowledge at the synthesis level to define and solve problems within professional and personal environments.	2. Quantitative Reasoning (DB, PC, WW) The student will demonstrate the use of digitally-enabled technology (including concepts, techniques and tools of computing), mathematics proficiency & analysis techniques to interpret data for the purpose of drawing valid conclusions and solving associated problems.	3. Information Literacy (DB, PC, WW) The student will conduct meaningful research, including gathering information from primary and secondary sources and incorporating and documenting source material in his or her writing.	Communication (DB, PC, WW) 4. The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.	5. Scientific Literacy (DB, PC, WW) The student will be able to analyze scientific evidence as it relates to the physical world and its interrelationship with human values and interests.	6. Cultural Literacy (DB, PC, WW) The student will be able to analyze historical events, cultural artifacts, and philosophical concepts.	7. Lifelong Personal Growth (WW Only) The student will be able to demonstrate the skills needed to enrich the quality of life through activities which enhance and promote lifetime learning.	
Courses and Learning Activities							
2015-2016 Assessment Cycle			✓	✓			
2016-2017 Assessment Schedule			✓	✓			
2017-2018 Assessment Schedule				✓	✓	✓	✓
2018-2019 Assessment Schedule	✓	✓					
2019-2020 Assessment Schedule	✓	✓					
2020-2021 Assessment Schedule				✓		✓	✓
2021-2022 Assessment Schedule	✓		✓		✓		
2022-2023 Assessment Schedule		✓					✓
2023-2024 Assessment Cycle		✓		✓		✓	✓
Legend : ✓ = Aligned							

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ASA PO Assessment Schedule

Courses and Activities Mapped to The ASA Program Outcomes

	Outcome			
	8. Aviation/Aerospace/Aeronautical Science The student will demonstrate a knowledge and understanding of the basic and thus advanced concepts of aeronautical science as they apply to the aviation/aerospace industry for solving problems.	9. Aviation Legislation and Law The student will engage and discuss to present a knowledge and understanding of basic concepts in National and International Legislation and Law as they pertain to the aviation/aerospace industry.	10. Aviation Safety The student will compare and discuss in written and spoken formats a knowledge and understanding of basic concepts in aviation safety as they pertain to the aviation/aerospace industry	11. Aviation Management and Operations The student will present and illustrate a knowledge and understanding of management activities as they apply to aviation/aerospace operations in written and numerical ways where ever appropriate
2015-2016				
2015-2016 Assessment Schedule				✓
2016-2017 Assessment Schedule	✓	✓		
2017-2018 Assessment Schedule	✓	✓		
2018-2019 Assessment Schedule			✓	✓
2019-2020 Assessment Schedule			✓	✓
2020-2021 Assessment Schedule	✓	✓		
2021-2022 Assessment Schedule	✓	✓		
2022-2023 Assessment Schedule			✓	✓
2023-2024 Assessment Cycle			✓	✓

Legend : ✓ = Aligned

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2018-2019 Assessment Cycle
Assessment Plan

Measures

Aeronautics Shared Program Outcomes

Outcome

Outcome: Critical Thinking

The student will show evidence of knowledge at a synthesis level to define and solve problems within professional and personal environments.

▼ **Measure:** ASCI 202 End of Course Student Survey
Course level Indirect - Survey


Details/Description: End of Course survey questions will be used to obtain student feedback to obtain appropriate information that supports that conditions were present that enabled the student to be capable of successfully accomplishing this outcome.

Criterion for Success: Custom questions added in attempt to determine student impressions on their achievement of the outcome and will use Likert scoring. 75% of respondents will answer AGREE or STRONGLY AGREE

Timeframe of Data Collection: AY 2018-2019

Key/Responsible Personnel: Program Chair

Supporting Attachments:

 Assessment_WW_COA_ASCI202 (1).pdf (Adobe Acrobat Document)

▼ **Measure:** ASCI 254 Case Analyses and LO Portfolio
Course level Direct - Student Artifact

Details/Description:	ASCI 254 students complete 7 Case Analyses papers and a Learning Outcomes Portfolio where all LO's are assessed. In this measurement, student performance will be aggregated across all sections of 254 during the cycle. Performance data is captured through the use of Interactive Rubrics, then aggregated at the end of the cycle.
Criterion for Success:	80% of students will have an average score of 70% or better (passing score) for the case analysis and portfolio.
Timeframe of Data Collection:	AY 2018-2019
Key/Responsible Personnel:	Program Chair

Outcome: Quantitative Reasoning

The student will show evidence of the use of digitally-enabled technology and analysis techniques to interpret data for the purpose of drawing valid conclusions and solving associated problems.

▼ **Measure:** STAT 211 Statistics with Aviation Applications
Course level Direct - Exam

Details/Description:	This course is a study of basic descriptive and inferential statistics. Topics include types of data, sampling techniques, measures of central tendency and dispersion, elementary probability, discrete and continuous probability distributions, sampling distributions, hypothesis testing, confidence intervals, and simple linear regression.
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Criterion for Success:	Success in this course demonstrates the quantitative reasoning PO. At least 80% of students who complete the course have final scores of 75% or better.
Timeframe of Data Collection:	AY 2018-2019
Key/Responsible Personnel:	BSA Program Chair

▼ **Measure:** STAT 211 Statistics with Aviation Applications
Course level Indirect - Survey

Details/Description:	End of course survey questions will be used to obtain student feedback to determine if conditions were present that enabled the students to successfully demonstrate this PO.
Criterion for Success:	75% of respondents will answer AGREE or STRONGLY AGREE
Timeframe of Data Collection:	AY 2017-2018
Key/Responsible Personnel:	BSA Program Chair

Outcome: Aviation Safety

The student will show evidence of basic concepts in aviation safety as they pertain to the aviation, aerospace, and aeronautics industry.

▼ **Measure:** ASCI 202 Case Analysis
Course level Direct - Student Artifact

Details/Description:	ASCI 202 Introduction to Aeronautical Science is aligned well with the Aeronautics Outcomes. ASCI 202 provides students an orientation in aviation
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topics appropriate to the aeronautics degree programs. Subjects include: the aviation profession, science of flight, human factors, security, safety, air traffic control, aviation environment, aircraft maintenance, meteorology, aerospace, and aeronautical science. ASCI 202 is the foundation course for the Aeronautics degree program. The course has a series of activities, most importantly the inquiry-based learning Case Analysis Process.

Criterion for Success:	80% of students will have an average score of 70% (passing score) for each case analysis.
Timeframe of Data Collection:	AY 2018-2019
Key/Responsible Personnel:	Program Chair

▼ **Measure:** ASCI 202 End of Course Student Survey
Course level Indirect - Survey

Details/Description:	End of Course survey questions will be used to obtain student feedback to obtain appropriate information that supports that conditions were present that enabled the student to be capable of successfully accomplishing this outcome.
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Criterion for Success:	Custom questions added in attempt to determine student impressions on their achievement of the outcome and will use Likert scoring. 75% of respondents will answer AGREE or STRONGLY AGREE
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Timeframe of Data Collection:	AY 2018-2019
Key/Responsible Personnel:	Program Chair

Outcome: Aviation Management and Operations

The student will show evidence of sound, ethical, management principles within standard aviation, aerospace, and aeronautics operations.

▼ **Measure:** ASCI 202 Case Analysis
Course level Direct - Student Artifact

Details/Description: ASCI 202 Introduction to Aeronautical Science is aligned well with the Aeronautics Outcomes. ASCI 202 provides students an orientation in aviation topics appropriate to the aeronautics degree programs. Subjects include: the aviation profession, science of flight, human factors, security, safety, air traffic control, aviation environment, aircraft maintenance, meteorology, aerospace, and aeronautical science. ASCI 202 is the foundation course for the Aeronautics degree program. The course has a series of activities, most importantly the inquiry-based learning Case Analysis Process.

Criterion for Success: 80% of students will have an average score of 70% (passing score) for each case analysis.

Timeframe of Data Collection: AY 2018-2019
Key/Responsible Personnel: Program Chair

▼ **Measure:** ASCI 202 End of Course Student Survey
Course level Indirect - Survey

Details/Description: End of Course survey questions will be used to obtain student feedback to obtain appropriate information that supports that conditions were present that enabled the student to be capable of successfully accomplishing this outcome.

Criterion for Success: Custom questions added in attempt to determine student impressions on their achievement of the outcome and will use Likert scoring. 75% of

respondents will answer AGREE or STRONGLY
AGREE

Timeframe of Data

AY 2018-2019

Collection:

Key/Responsible

Program Chair

Personnel:

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